

1 ABSTRACT OF THE DISCLOSURE

2 A connect and disconnect assembly for connecting and disconnecting a laser diode having
3 leads to a printed circuit board (PCB). The assembly includes a heatsink having a base plate portion
4 and fins extending from and integral with the base plate portion. The heatsink further includes spacer
5 sleeves extending from a side of the base plate portion opposing the fins. The heatsink connects to the
6 printed circuit board by providing mount screws through the heatsink and spacer sleeves which are
7 received in mount holes formed in the PCB. The laser diode connects to the base plate portion of the
8 heatsink. Laser support blocks connect with the heatsink and support opposing sides of the laser diode.
9 Each laser support block is provided with a dielectric gasket. When the heatsink is mounted onto the
10 PCB, the laser diode leads are forced against corresponding pads provided on the PCB for electrically
11 connecting the laser diode to the PCB. The dielectric gaskets provide pressure on the laser diode leads
12 so that they adequately contact their corresponding pads on the PCB, and electrically isolate and
13 insulate the leads to prevent lead frequencies from intermixing. The assembly provides a convenient
14 mechanism for connecting/disconnecting the laser diode and heatsink to/from the PCB. Further, the
15 laser diode and assembly can be easily disconnected from the PCB so that a modified, repaired,
16 and/or updated laser diode or other component can be quickly and easily inserted into the circuit
17 without damaging or destroying the laser diode or the PCB.